

ABSTRACT OF THE DISCLOSURE

A communication device for use in a non-self synchronizing scrambling (NS3) communication system and a method for using NS3 in a communication system are disclosed. A digital data stream is scrambled by modifying the digital data stream based on a pseudo-noise sequence (PNS) to produce a scrambled digital data stream. The PNS has a timing reference that is distinct from the digital data stream. The scrambled digital data stream is capable of being descrambled by performing an inverse modification, based on the same PNS and the same timing reference. The scrambled digital data stream may be transmitted over a communication medium and descrambled at the opposing end of the communication medium. Synchronization between the scrambler and the descrambler is maintained by providing a common timing reference to the scrambler and the descrambler. The common timing reference is distinct from the data stream. The invention can be used on any communication system in which all the communication devices have a common timing reference.

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